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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,768	06/01/2001	Ronnie Elbert Dean	DDM01-009	3087

7590 09/16/2004

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EXAMINER

PUENTE, EMERSON C

ART UNIT PAPER NUMBER

2113

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/871,768

Applicant(s)

DEAN ET AL.

Examiner

Emerson C Puente

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,11 and 16 is/are rejected.
- 7) ☒ Claim(s) 2-5,7-10,12-15, and 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This action is made **Final**. Claims 1-20 have been examined.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,6,11, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,633,538 of Tanaka et al. referred hereinafter “Tanaka”.

In regards to claim 1, Tanaka discloses a system for controlling operation of a plurality of computing apparatuses in a network (see figure 1 item 110 and 111); each respective computing apparatus of said plurality of computing apparatuses hosting at least one respective service; the system responding to any said respective computing apparatus being inoperative by effecting a continuity operation; said continuity operation including distributing said at least one service hosted by said inoperative computing apparatus among operating said respective computing apparatuses in said network. Tanaka discloses “when the master node 110 detects a failure in a slave node 120, the failure monitoring/representing process unit 111B takes over and performs both the functions (service) provided by the slave node 120 stopped due to the failure, and the monitoring of a node to be monitored by the slave node 120” (see column 5 lines 15-21);

the system comprising:

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(a) at least one watchdog control unit; said at least one control unit being substantially embodied in hardware; said at least one control unit being coupled with each said respective computing apparatus in said network(see figure 1 item 130 and column 4 lines 39-45); and

(b) at least one watchdog control program; each respective control program of said at least one control program being substantially embodied in software; said at least one control program being distributed among at least one of said respective computing apparatuses in said network (see figure 1 item 111B and 121B and column 5 lines 15-21);

one of said at least one control unit and said at least one control program effecting said continuity operation when a respective said computing apparatus becomes an inoperative computing apparatus (see column 5 lines 15-21)..

In regards to claim 6, Tanaka discloses “when restored from s failure, as described earlier with reference to FIG. 5, node 1 obtains a real IP address corresponding to its own real IP address (node 1 virtual IP address), a master virtual IP address and the real IP address of node 2 to be monitored (node 2 real IP address) from its own address management table 112A, makes effective both the virtual IP address and the master virtual IP address after confirming that there is no response to a confirmation packet for the virtual IP address corresponding to its own node, and operates as a master node 110” (see column 13 lines 10-20), thus indicating wherein one of said at least one control unit and said at least one control program effects a recovery operation when said inoperative computing apparatus becomes an operative computing apparatus; said recovery operation effecting returning said at least one respective service to the respective computing apparatus from which it was distributed when effecting said continuity operation.

In regards to claim 11, Tanaka discloses a system for effecting recovery of a network; said network including a plurality of computing apparatuses; each respective computing apparatus of said plurality of computing apparatuses hosting at least one respective service (see figure 1 item 110 and 111); the system comprising:

(a) at least one watchdog control unit; said at least one control unit being substantially embodied in hardware; said at least one control unit being coupled with each said respective computing apparatus (see figure 1 item 130 and column 4 lines 39-45); and

(b) at least one watchdog control program; each respective control program of said at least one control program being substantially embodied in software; said at least one control program being distributed among at least one of said respective computing apparatuses (see figure 1 item 111B and 121B and column 5 lines 15-21);

the system responding to a respective said computing apparatus becoming an inoperative computing apparatus by effecting a recovery operation; said recovery operation including distributing said at least one service hosted by said inoperative computing apparatus as at least one distributed service among operating said respective computing apparatuses. Tanaka discloses “when the master node 110 detects a failure in a slave node 120, the failure monitoring/representing process unit 111B takes over and performs both the functions (service) provided by the slave node 120 stopped due to the failure, and the monitoring of a node to be monitored by the slave node 120” (see column 5 lines 15-21); and

returning said at least one distributed service to said inoperative computing apparatus after said inoperative computing apparatus becomes operative; said at least one control unit and said at least one control program cooperating to effect said recovery operation . Tanaka discloses

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“when restored from a failure, as described earlier with reference to FIG. 5, node 1 obtains a real IP address corresponding to its own real IP address (node 1 virtual IP address), a master virtual IP address and the real IP address of node 2 to be monitored (node 2 real IP address) from its own address management table 112A, makes effective both the virtual IP address and the master virtual IP address after confirming that there is no response to a confirmation packet for the virtual IP address corresponding to its own node, and operates as a master node 110” (see column 13 lines 10-20). When node 1 operates as a master node, it goes back to monitoring for failures in slave nodes, thus indicating returning said at least one distributed service to said inoperative computing apparatus after said inoperative computing apparatus becomes operative; said at least one control unit and said at least one control program cooperating to effect said recovery operation.

In regards to claim 16, Tanaka discloses a method for effecting recovery of a network; said network including a plurality of computing apparatuses; each respective computing apparatus of said plurality of computing apparatuses hosting at least one respective service; the method comprising the steps of:

(a) in no particular order:

(1) providing at least one watchdog control unit; said at least one control unit being substantially embodied in hardware; said at least one control unit being coupled with each said respective computing apparatus (see figure 1 item 130 and column 4 lines 39-45); and

(2) providing at least one watchdog control program; each respective control program of said at least one control program being substantially embodied in software; said at least one control program being distributed among at least one of said respective computing apparatuses; (see figure 1 item 11B and 121B and column 5 lines 15-21);

(b) operating the system to respond to a respective said computing apparatus becoming an inoperative computing apparatus by effecting a recovery operation; said recovery operation including the steps of:

(1) distributing said at least one service hosted by said inoperative computing apparatus as at least one distributed service among operating said respective computing apparatuses. Tanaka discloses “when the master node 110 detects a failure in a slave node 120, the failure monitoring/representing process unit 111B takes over and performs both the functions (service) provided by the slave node 120 stopped due to the failure, and the monitoring of a node to be monitored by the slave node 120” (see column 5 lines 15-21); and

(2) after said inoperative computing apparatus becomes operative, returning said at least one distributed service to said previously inoperative computing apparatus; said at least one control unit and said at least one control program cooperating to effect said recovery operation Tanaka discloses “when restored from s failure, as described earlier with reference to FIG. 5, node 1 obtains a real IP address corresponding to its own real IP address (node 1 virtual IP address), a master virtual IP address and the real IP address of node 2 to be monitored (node 2 real IP address) from its own address management table 112A, makes effective both the virtual IP address and the master virtual IP address after

confirming that there is no response to a confirmation packet for the virtual IP address corresponding to its own node, and operates as a master node 110” (see column 13 lines 10-20). When operating as a master node, then goes back to monitoring for failures in slave nodes, thus indicating returning said at least one distributed service to said inoperative computing apparatus after said inoperative computing apparatus becomes operative; said at least one control unit and said at least one control program cooperating to effect said recovery operation.

Allowable Subject Matter

Claims 2-5, 7-10, 12-15, and 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

Applicant's arguments filed June 14, 2004 have been fully considered but they are not deemed to be persuasive.

In response to applicant's argument on page 21 that states “In contrast, it is respectfully submitted that the primary reference of the Office Action to Tanaka allegedly discloses a system wherein only a software based watchdog is distributed over a plurality of nodes of a network or cluster of nodes. As pointed out by the Office Action, Tanaka makes reference to a control node 130. However, it is respectfully submitted that the control of control node 130 is software based.

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Furthermore, it is respectfully submitted that control node 130 does not actively participate in watchdog or monitoring functions. Nor does control node 130 participate in or orchestrate continuity or recovery operations.

Instead, it is respectfully submitted control node 130 is simply an interface and supervisory device for configuring the master node 110 and slave nodes 120 of the system of Tanaka,” examiner respectfully disagrees.

The claim limitation cites “at least one watchdog control unit; said at least one control unit being substantially embodied in hardware, said at least one control unit being coupled with each said respective computing apparatus in said network.” Tanaka discloses a control node comprising hardware peculiar to the node (see column 4 lines 50-56), indicating a control unit substantially embodied in hardware. Tanaka further discloses the control node is connected to the master and slave nodes via a network (see column 4 lines 39-41), indicating said at least one control unit being coupled with each said respective computing apparatus in said network. Since the control node gives instructions to the master node (see column 13 lines 20-25), which comprises a watchdog control program, the control node constitute a “watchdog control unit,” as recited in the claim.

In response to “that control node 130 does not actively participate in watchdog or monitoring functions. Nor does control node 130 participate in or orchestrate continuity or recovery operations,” the applicant does not claim such limitation. The claim limitation cites “one of said control unit and said at least one control program effecting said continuity operation ...”. Tanaka discloses the process unit or watchdog control program located in the master node which detect failure in the slave node and makes another slave node or the master node represent

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the services provided by the failed slave node (see column 5 lines 15-20), thus indicating one control program effecting said continuity operation and thus meeting the limitation "one of said control unit and said at least one control program effecting said continuity operation ...".

Conclusion

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emerson C Puente whose telephone number is (703) 305-8012. The examiner will be moving in October 13, 2004. The examiner number at the new site is (571) 272-3652. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5631.

Emerson Puente

9/9/04


ROBERT BEAUSOLIEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100